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ESSAY ON THE PLAGUE:

ALSO

A SKETCH

OF

A PLAN of INTERNAL POLICE,

PROPOSED AS A MEANS OF

PREVENTING the SPREADING of the PLAGUE,

SHOULD IT BE INTRODUCED INTO THIS COUNTRY.

BY

WILLIAM FALCONER, M. D. F. R. S.

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1801.

TO HIS GRACE

The DUKE of PORTLAND:

MY LORD,

I HAVE taken the liberty to address this small, but if it answers the purpose, not unimportant Work to you, from a confidence, derived from a long acquaintance with your Person and Character, that nothing calculated to promote the happiness and safety of mankind will be, to you unacceptable.

Providence which has so long protected, will, I trust, continue to avert this dreadful Scourge *from our Country.*

But Security must not supersede the means of Safety ; and it is necessary to provide the latter before the precipitancy and confusion take place, which a sudden alarm, when no plans for preventing the spreading the mischief were formed, would naturally produce.

On these grounds I submit what I have written to your Grace's consideration, and remain, with great respect and esteem,

Your obliged and faithful
Humble Servant,
W. FALCONER.

BATH, DEC. 7, 1801.

DISSERTATION

ON THE

PLAGUE.

IF we examine the history of mankind, we may observe that some particular disease has in every age, been regarded with particular apprehension and dread. In early times the leprosy seems to have been viewed in this light; but this, considered as a contagious disease, has long disappeared from the history of medicine, and has probably been worn out, and eradicated for many ages. Another more mortal, and at least as infectious, has succeeded to the leprosy, and become an object of terror equal at least to the former. The disease called Λοιμος by the Greek, and *Pestis* by the Latin writers, and which we translate the Plague, has been figuratively used

to signify the greatest* mischief that could happen, and to denote objects that were likely to produce the greatest public misfortune.

Its frequent occurrence in former times, the rapidity of its progress, and its mortal effects, have justified these comparisons, which have been adopted in later ages, and applied to the disease we at present call the Plague; and are now in as general use in the modern European languages, as they were in those of former periods.—Whether the disease which we call by this name, be the same with that described by the writers of antiquity, is a matter of doubt, but it appears in some instances of its recurrence to have been a distemper equally mortal.

*Servatæ a peste carinæ.' *Virg. Æneid,* 699. Scilicet ab incendio.

So in the latter ages Pestis is put as Du Cange says, "Pro quavis miseria et exitio." Vox pestis. It is often used personally—

"Reipublicæ funesta pestis." *Cicero pro Domo* speaking of *Clodius.*

Λοιμοι και φθοροι πολεως—Aristid de viris sceleratis loquens.

ευροντες γαρ τον ανδρα τουτον λοιμον—Act Apost. Cap. 24.

ο φαρμακος ο λοιμος Demosth. in Aristogiton.

I shall now attempt to give as accurate and concise an account as I can of the Plague as it has appeared in modern ages taken from the accounts of those who have been eye-witnesses of its effects.

Description of the Plague.

THE first symptoms of the Plague are scarcely distinguishable from those of other fevers.

A sense of weariness in the limbs, attended with shivering, sometimes inconsiderable, at others violent; and pains in the back and loins were symptoms that accompanied its approach, but afforded, no distinguishing marks of the disease.---To these was joined head-ach, in some instances slight, and in others vehement, but always attended with giddiness, and confusion, though not arising to delirium; and this seemed in some measure peculiar to the Plague, as the head was earlier affected than in common fevers. Ac-

cording to Hodges, when the shivering went off, it was succeeded by nausea and vomiting, and an excessive loathing of food, which he regarded as an infallible sign of the disease. But it appears from his account, that this symptom, though frequent, did not constantly take place.—Nearly the same account is given by Russel, save that he does not regard this symptom as peculiar to this distemper.—Dr. Russel thinks that "muddy dull eyes" were characteristic of this disease or rather a "mixture of muddiness and lustre." It is difficult to comprehend this description, which however, I doubt not, would soon be verified and explained by observation and experience.

The tongue appears to have been variable, sometimes black and dry, and at others moist and little affected, and indeed to have afforded no distinguishing mark of the presence of the distemper.

The pulse likewise did not afford much assistance in distinguishing the Plague from other fevers. In general it was according to

Russel low, quick, and equal, but sometimes fluttering and intermittent, and in some, varying little from its natural state. The last circumstance is observed by Hodges, who lays it down as a rule that "the pulse which in all other diseases is almost a certain index, in this sickness could not at all be trusted to."

Dr. Russel* observes "that a sudden loss of strength and disturbance of the functions attributed to the brain and heart are reckoned in a particular manner, symptoms belonging to the Plague. In their highest degree they distinguish the most fatal forms of the disease and under different modifications adhere to all its varieties."

A sense of oppression about the præcordia was another symptom connected with the former, and invariably present, except in some very favourable instances.

Pain at the heart, which Dr. Russel observed to be often conjoined with the former

*Page 88.

symptom, is very common, and in a good measure (at least in the degree it appeared) peculiar to the plague. This symptom joined to a violent palpitation was remarked by Hodges,§ and by Sydenham.*

The heat of the skin appears to have been variable, in some very great, and in others little more than natural, and to have afforded no certain sign of the distemper. It appears however to have been very fluctuating, being at one time vehement, and at another below the natural standard.

An increase of perspiration is remarked by Dr. Russel to be natural to this disease, and in this he agrees with Hodges, and in a great measure with Sydenham. †Hodges describes the sweats as sometimes of a citron hue, sometimes purple, green, or black, or like blood, and of an intolerable fœtid smell. Russel particularly remarks that nothing of this kind fell under his observation. The state of the bowels was far from uniform, in some costive and in others lax, but without

§Pag. 103. *2. chap. 2d. †109

remarkable pain, and which admitted of being easily checked by opiates.

The urine appears to have been little affected.

The above mentioned symptoms, though affording cause of suspicion in doubtful circumstances, are nevertheless all of them in a good degree common to other fevers; our inquiries therefore must be directed to what may give us some satisfactory mark of the disease, if such can be found, and this the Plague exhibits in the most indubitable manner.

A swelling, or sore, the *former* generally in the groin, less frequently in the armpit, and still less frequently under the ear, or in the neck; and the *latter* appearing in various parts of the body may be said to be invariable attendants on the Plague. The swelling is preceded and accompanied by darting shooting pains in the part, which pains are often among the first symptoms of indisposition, though sometimes, but less

frequently not appearing until the second day, but never later than the third. The swelling is generally oblong in shape, and differing in size from that of an olive or hazel nut to many times that bulk. It is always hard, and sometimes acutely painful to the touch, and always in some degree so, when handled. When first felt it is often round, and seems deep seated, but for the most part moveable under the skin, which retains its natural colour, and without any previous swelling or enlargement.

It should be observed that these swellings, though almost always occurring, are not always to be discovered without diligent search, and inquiry. An apprehension‡ of being abandoned by their friends and attendants, led many to dissemble their feeling, and to endeavour to conceal their distinguishing symptoms, and as these sentiments may occur in England, as well as at Aleppo, we must be on our guard against such deception, and make our examination stricter on that account.

‡Russel.

Another form in which the external signs of the Plague appear, less frequent indeed than the former, but not unusual, is in that of carbuncles, as they are called by the writers on the plague. These are described as of several kinds, or at least as assuming different appearances. Sometimes that of a hemispherical pustule, of the size of a pea, with a red inflamed margin, forming a narrow rim round the tumour, sometimes that of an angry spreading pustule, which usually turned black on the second day of the disease, and appeared principally on the joints of the extremities At others, the carbuncles appeared in form of round blisters, about half an inch wide, encircled with an inflamed margin. Some again were like a red spot, which soon increased to a flattish dusky pustule, with an inflamed border, which quickly mortified. Sometimes it shewed itself like a variolous pustule with an inflamed edge and the point or upper surface black.—These varieties and perhaps more, occurred to Doctor Russel at Alcppo.—It is to be observed that a red inflamed edge or margin was common

to them all, and may be accounted a distinguishing mark. But in suspicious circumstances, all eruptions that resemble any of these, must be taken for indications of the disease, as far as respects the cautions necessary to prevent the spreading of the infection.

Some variety was observable in the buboes, they being in some cases smaller than as above described, and affecting various parts of the body, but I do not find any other difference in their appearance, and they indicate the disease as certainly as the others.

The proportion which these eruptions bear to one another is as follows:

In 3205 cases, there were of

Inguinal Buboes	Axillary Buboes	Parotids	Carbuncles	Spurious Buboes
1841.	569.	231.	490.	74.

If we abridge this calculation, and suppose the whole number of cases to be as 100, the proportion of each will stand nearly thus.

Inguinal Buboes.	Axillary Buboes.	Parotids	Carbuncles	Spurious Buboes.
57,4414.	17,7535	7,2J49.	15,2886.	2,3088.

The inguinal and axillary buboes amount to rather more than three-fourths of the whole.

It might possibly be supposed that the plague in this country considering the difference of climate, manners, food, &c. might assume a different appearance from what it exhibits at Aleppo, and of course that the signs which were regarded as indicatory of its nature at that city, might prove uncertain or fallacious in Great Britain.

But it appears from Sydenham and Hodges, that the signs of the Plague are very little different in this country, from those it manifests in Asia, and the directions for the searchers or persons appointed to examine those who were suspected to have the Plague, A. D. 1665, which were, I doubt not, founded on practical observations, manifest that

the external marks, which are the only indubitable proofs, correspond nearly if not altogether with those observed by Russel and other writers, who have given an account of the Plague as it appeared in other countries.

Such is the appearance of the Plague in its early stage, or in general on the first day. The progress of the disease is little more than an increase of the above symptoms. The head-ache and confusion are aggravated into coma and delirium, the pulse sinks, clammy sweats break out, the extremities become cold, and generally on the third, fourth, or fifth, or sixth day, and, often in the midst of fallacious appearances, death finishes the tragedy.

Tables of the days on which the cases of the plague hereafter cited, from different authors, terminated unsuccessfully.

Day on which the disease terminated fatally.	Numbers that died. Diemerbroeck.	Numbers that died. Chicoyneau.	Numbers that died. Russel.
1	1	1	
2	10		
3	10		8
4	12	1	10
5	4	1	16
6	6	2	13
7	2		5
8	1	1	3
9	1		1
10		1	1
11			3
20		1	
26	1		
	48	8	60

It appears from the above table that according to Diemerbroeck, 33 persons out of

48, or more than two-thirds died before the end of the fourth day inclusive from the seizure, and that 43 or more than four-fifths died before the end of the sixth day, that only 2 or 1-24th died on the 7th day, and only one or 1-48th on the ninth. In the cases given by Chicoyneau, one died on the second, fourth, and fifth day, two on the sixth, and one on the eighth, ninth, and twentieth. In the account given by Dr. Russel, 31 or more than one half, died by the end of the fifth day 47 or nearly four-fifths died by the end of the sixth day, and none died later than the eleventh.

On the Cure of the Plague.

HAVING thus given a brief account of the disease, I wish to suggest some hints on the method of cure. This may seem presumptuous in me, who profess to have no acquaintance with the Plague, but from the accounts of others; nevertheless, I am encouraged to deliver my sentiments on the subject from the following considerations.

FIRSTLY.—The analogy which the Plague bears to other diseases, and the means of cure which have proved most successful in diseases that bear such resemblance.

SECONDLY.—The mortal effects of the Plague, and the little advantage that seems to have been reaped from following the intentions of cure usually laid down, or from the remedies administered.

In the Plague in London, A. D. 1665, there died 68,596 people, according to Strype's* calculation. But according to Sir W. Petty and Mr. Grant, the latter of whom published observations on the bills of mortality, A. D. 1676, by order of the Royal Society, the number appears to have been 98,000, but Lord Clarendon says,† "that it appeared from the weekly bills that 160,000 persons died, and many who could compute very well, concluded that there were in truth double that num-

*Strype's Cont. of Stow's Survey.

†Cont. of the Life of Edward Earl of Clarendon, Vol. 3, page 260. *Octavo Edition* 1759.

ber, and that in one week when the bills mentioned only ‡6000, there had in truth 14,000 died."

Sir W. Petty and Mr. Grant, both compute that 1-fifth of the inhabitants died, the numbers of which last, must according to their calculation, have then been, at that time, 490,000.

Whichsoever of these computations we adopt, it appears, that in all probability the efforts of professional persons were but of small efficacy. Yet Sydenham, Hodges, and others of discernment and learning were concerned, and used their utmost exertions to stop or diminish the mortality.

Nor does the assistance of medicine in later times appear to have been very successful.—In 120 cases related at length by Dr. Russel, 61 died, 54 recovered, and of 5 the event was not known.

‡Hodges though he does not give an account of the whole number, mentions, that in one week, 8000 died.

The deaths were to the recoveries, as 1. 1293 to 1. nearly, or not much different from the proportion of 10 to 9. These facts in my opinion, sufficiently justify any proposals for an alteration in the method of treatment. It can hardly be expected that another mode of practice could be less successful, and I flatter myself some advantages may be reaped from a different plan.

It appears from the writings of Sydenham and Morton, that the hot regimen, as it was called, in fevers, was in their time, in general use. This was thought particularly necessary in those of the eruptive kind, which were supposed to arise from a poisonous §ferment, which tainted the whole of the animal fluids, and was to be expelled (per regiam viam) as Morton calls perspiration. Sydenham laboured to oppose this practice, but as appears from Morton, ineffectually; and a warm regimen and hot stimulating cordials continued to be given in order to expel the enemy by such means, as they

§ Venenatum fermentum.

thought were suggested by nature. It is evident that in this case they mistook the Symptoms of the disease, and what was in reality a mark of its aggravation, for an effort of nature to its relief, and endeavoured to promote, what in reality ought to have been repressed, and counteracted as much as possible. Hence their indications of cure were to drive out eruptions, and to keep them out as long as they could by warmth of rooms, bed cloaths, and warm stimulating opiate compostions. Many no doubt were sacrificed to this mistaken idea, and the bad effects of it in fevers became so evident, that by the common consent of Physicians, it was reformed, and the method of cure recommended by Sydenham, in a good measure adopted. Still, however, the hot regimen was continued in the small-pox, after it was abandoned in other inflammatory cases.--The apprehension of repressing the eruption by cold, prevailed over the advice and experience of Sydenham, and over the strongest indications suggested by the feelings and wishes of the sick.

A casual circumstance, however, proved these apprehensions to be groundless. An accidental fire broke out in a village, in which great numbers lay ill of the small-pox, and nearly consumed it. The sick were obliged to be carried out, and for want of what would have been thought better accommodation, deposited in open barns, out houses, and even under the dry arches of a bridge, all of them places exposed to currents of fresh air. This circumstance, which it was thought would have been their inevitable destruction, proved the means of their recovery. The persons so treated, many of whose lives were despaired of, all got well, to the surprise of those who attended them, and indeed of the medical profession in general. Suggested however by this event, the cool regimen was adopted in the small-pox, and the good effects of it are now universally acknowledged.

But the progress of improvement is slow, and the most obvious analogies are often neglected.—The Plague is an eruptive disease, and in many instances, bears a strong resem-

blance to the small-pox. The eruptions that appear are, like those of the variolous kind, not so much to be considered as operations or attempts of nature towards its relief, as they are the disease itself. They often appear as the first symptoms, and when most numerous, indicate its excess of malignity. Yet the modern writers, following the steps of their predecessors, have laid it down that it is (if at all) to be cured by sweating, much on the same plan as was formerly recommended by Morton in the small-pox.

Sydenham, whom I shall have occasion to cite after for a contrary opinion, has been rather unguarded and inconsistent in what he delivers on this head, and has given too much encouragement to this practice. He advises a weight of bed cloaths, and sudorific remedies, and seems at the same time doubtful of the propriety of what he advises. He fluctuated, it appears between his theory and his experience.

Diemerbroeck, who was cotemporary with Sydenham, though his work was prior to that

of our countryman, on the same subject, lays the principal stress of the cure on sweating, and adopts the hot regimen to its most exceptionable extent. He directs the chambers of the sick to be kept strictly shut up, "ne ab acris frigidoris introitu obstiparentur corporis pori," and scarcely to be opened, and then not without the greatest caution, even to dissipate the fœtor of offensive stools; a large fire is also directed to be kept up, with the exception only of the heat of summer. With the same intentions he directs the linen and other coverings not to be changed before the seventh day, except the effluvia of perspiration (which he says is never productive of any ill consequences) should become so odious to the sick person, that he can bear it no longer; and then he is not permitted the comfort of clean und uncontaminated linen, but is required to put on that which has been before worn and soiled by his own perspiration or by that of others. This absurd and nauseous process should it not relieve the sick at the first trial, is directed to be repeated to the fourth or fifth time, with the interval of ten or twelve hours, ac-

companied with the exhibition of mithridate theriaca, or some of the heating, or as they were then called, cordial opiates.

If such was the practice, it will be difficult to determine whether the patient was more endangered by the disease or by the remedy; and when we consider that he must have had to struggle with both, we need not wonder at the numbers that encumber the bills of mortality.

Hodges, though a man of talents and observation, was so far misled by the prevailing error of the age, as to concur in the same extravagant and unnatural practice. He directs the patients to be kept close in their beds the whole time of the disease, and, if refractory, to be tied down in them, covered over with blankets, denied change of linen, drenched with spirituous waters, alexipharmacks, and nauseated with powder of toads, and troches made of the flesh of a rattle-snake; which last he extols as a sovereign remedy.

It is the more extraordinary that this writer should rush headlong into such absurdity, when his own observation had before instructed him, that sweating was a morbid symptom in the plague, and what the sick were too apt to fall into; and which as he himself expresses it "sometimes breaks out in such profusion, as if the whole constitution was dissolved, and with a vast loss of spirits and strength, to the imminent danger of the patient. By such a dissipation of spirits, such a colliquation of the balsam of life, and an extinction of the natural heat.—And indeed I know nothing, says he, that more powerfully attenuates the humours, and more suddenly puts all the animal juices into fusion, so as to run them through the pores of the skin, than the pestilential nitro-aereal poison, by whose colliquative quality, even the fleshy parts are dissolved, and exhaled into vapour."

I am I confess not a little concerned and surprised that Dr. Cullen should have embraced the same opinion respecting the cure of the Plague; a man whose ingenuity was particularly manifested in the observation of analogy

in the practice of physic, and in adjusting methods of cure on the same grounds where personal experience was defective. He recommends after the exhibition of the first vomit, (a practice by the by condemned from the experience of others) "that the body should be disposed to sweat, and continued in that state for twenty-four hours, or more, if the patient bears it easily."

Opiates either by themselves, or combined with emetics, and neutral salts, are the means he recommends to excite this evacuation, which however he wishes to be conducted in a much less exceptionable manner than is recommended by former writers; but the nature of the discharge, and the long continuance of it, which he advises, must however in my opinion, contradict those indications which should govern us in our attempts towards a cure. In support of what I have advanced, I wish not to quote better authority than what Dr. C. himself delivers a few pages after, on the treatment of miliary eruptions, which the reader will, I am confident, think particularly applicable

in this place. "It has been an unhappy opinion, says he, with most physicians, that eruptive diseases were ready to be hurt by cold, and that it was therefore necessary to cover up the body very closely, and thereby increase the external heat. We now know that this is a mistaken opinion, that encreasing the external heat of the body is very generally mischievous, and that several eruptions not only admit, but require the application of cold air. We are persuaded therefore that the practice, which formerly prevailed in the case of miliary eruptions, of covering up the body close, and both by external means and internal remedies encouraging the sweatings which accompany this eruption, was highly pernicious, and commonly fatal.—I am therefore of opinion, that even when a miliary eruption has appeared, in all cases wherein the sweating is not manifestly critical, we should employ all the several means of stopping the sweating that are mentioned above, and I have sometimes had occasion to observe that even the admission of cool air was safe and useful." A little af-

ter he says, that when debility and putrescency prevail in eruptive cases, it will be proper to employ tonic and antiseptic remedies, particularly the Peruvian bark, *cold drinks*, and *cold air*.

Debility and putrescency eminently prevail in the Plague according to his own account. To what circumstances then could the remedies he recommends be more properly applicable.—Dr. Cullen justly regards the sweats in miliary eruptions as a part of the disease, and indeed both cause and effect, "and of the symptoms said to be concomitant of this eruption, there are none, he observes, which can be said to be constant and peculiar, but that of sweating." In consequence hereof, he advises that this symptom should be checked or counteracted, and this is what I would recommend in the Plague, for the same reasons. In the small-pox, an eruptive disease that bears a stronger analogy to the Plague, than to the miliary fever, the cool regimen is strongly recommended by him. "External heat either of the sun or fires, from warm cloathing or lying much in bed, are all for-

bidden, and exposing the person to a free and cool air, and the liberal use of cool drink, are strongly recommended both before and after the appearance of the eruption."

It is with equal concern that I differ on this occasion from Dr. Russel, a gentleman whose labours have thrown more light on the Plague, than those of any other person, to which I owe most of the information I possess respecting it, and whose veracity and candour are unquestionable. But I cannot forbear thinking that he has been carried down with the tide of general opinion, and adopted a system of practice which does not stand the test of experience. He advises sudorifics, but it is evident, without much confidence in their efficacy towards a cure. He admits that in the three first classes out of six, into which he divides the cases he observed, and which contain the most of those that terminated unsuccessfully, "sudorifics were of no service, and in the fifth, which contains those (of what he terms slight infection) they were not used, so that their utility seemed

to be confined to those of the fourth and sixth class, and it ought constantly, (says this very liberal writer) to be remembered, that a number of the infected comprehended in these two classes, recovered without any assistance from medicine."

The sudorifics he used (if spiritus myndereri saline draughts and cold water may be so called) were as unexceptionable as any of the class, but I apprehend the indication itself in the Plague is erroneous, as well as in the small-pox, and that the keeping the persons confined in bed, which is justly avoided as much as possible in the latter disease, is at least equally michievous in the former.

Dr. Alex. Russell* takes notice that the natural crisis of the disease was always by sweat; and Dr. P. Russel says that, "a tendency to sweat was observed in a very large portion of the infected,§ and, that natural sweats were at certain periods incident to the disease," and these circumstances seem to have induced both of them to think that the cure should

* History of Aleppo, p. 243. § page 91

be attempted by promoting this evacuation.† But the same tendency was observed in the miliary fever and the small pox, as I have before remarked, and the practice founded thereon, proved mischievous, and was properly laid aside as encouraging a morbid symptom, not increasing a salutary or critical discharge.

Even Hodges who was so strenuous an advocate for sweating, could not forbear remarking that ‡" a great expence of spirits and general decay of strength must be the consequence of such a waste, and that a continuance of sweat brings on a dangerous colliquation, or is a sign of it, and that fatal cold sweats sometimes come on after hot ones."

It is wonderful that these remarks did not prompt him to abandon the practice of sweating in the Plague, altogether. In the room then of the sweating plan, I would recommend the cool regimen, (as practiced in the small-pox) to its utmost extent. This must

† History of Aleppo, page 157. ‡ page 144.

be put into execution early in the disease, and continued with steadiness and resolution. The mortality of the disease under the present practice, and the advantages reaped from a different one in the small-pox, whose analogy to the Plague I have before remarked, justify such a procedure. We must not be deterred by speculative hazards of obstructing the critical deposit in the bubo, or the eruption of the carbuncle. These are marks of the virulence of the disease, and require to be prevented or moderated as much as the eruption in the small-pox or miliary fever, which is always more plentiful, as the disease is more dangerous, and is capable we know of being increased by a hot, or diminished by a cool regimen. The buboes, or swellings, in several of the cases reported by Dr. Russel, retired without injury to the patient, and proved that their coming to maturity was no more necessary to the recovery of the patient, than a profusion of suppurating pustules are in the small pox.---It is by no means impossible that a change of regimen might change the nature of this dread-

disease, and reduce its buboes and car-

buncles to common boils or small imposthumations. I have another reason for recommending this practice which is of greater importance to public safety than any I have yet adduced; but this will be brought forward more properly in a succeeding part of this work, which respects the prevention of the propagation of this disease, supposing it should be introduced into this country.

But it is not necessary for the recommendation of a cool regimen, to depend altogether on the mortality under the present system of practice, or on the analogy that the plague bears to the small-pox, and the good effects of the cool treatment in that disease. I think that I can shew from a contemporary writer of unexceptionable authority, that in the last Plague in London, in 1665, and 1666, the hot or sweating system was attended with the worst effects, and that the best were produced by the cool regimen, particularly by avoiding the heat of a bed. Sydenham, whose candour in observation, and veracity in narration were not to be perverted by preju
or authority, notwithstanding his judg

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on this occasion seems to have been rather improperly biassed, observes, even when pleading for the sweating system, in preference to bleeding in the Plague, "that the method by sweating has also its disadvantages, since in some persons a sweat is not easily raised, and the more you attempt to raise one by heaping on cloaths, and giving powerful sudorifics, so much the greater danger there is of causing a delirium, or which is still worse, after having been deluded awhile with vain expectations, pestilential spots are at length forced out, instead of sweat."*

This account of the effects of the hot regimen in the plague, is exactly analogous to what has been repeatedly observed of the increase of the variolous eruptions, and of the malignity of the disease, by the same means.

Again we are told by the same writer, "that he was convinced by experience, that sweats were ineffectual in this case, for though it must be owned that when a profuse sweat has been kept up for three or four hours,

* page 88.

and afterwards suddenly stopped, a tumor appears, yet I conceive" says he, " that it is by no means owing to the sweat, because there are no signs of swelling, whilst the sweat flows most plentifully, and when this is gone off, the swelling may arise, as it were by accident, or in consequence of nature being eased of a part of her load, whereby she was too much oppressed, by means of the sweat, and of the considerable heating of the body by cordials given to raise the sweat. But the uncertainty and danger of driving out the morbific matter by imposthumes, caused by sweat, sufficiently appears from its having proved fatal to near a third part (to speak within compass) of such as underwent this treatment. Whereas on the contrary, several persons in whom the tumors appeared in the regular and natural way, even whilst they were about their business, and without the least apparent disorder of any natural vital or animal function, recovered in a short time, unless such as happened unfortunately to fall into the hands of some unskilful practitioner, and by his advice, though in perfect

health, endeavoured to sweat in bed, from which time they began to grow worse, and at length the disease increasing, afforded a melancholy proof of the perniciousness of such advice, by the death of those who followed it." In the next paragraph he mentions, that purple spots which he says were certain signs of death were often the consequence of copious sweats, a circumstance well known to have occurred in numerous cases of the small pox, that were treated under the hot regimen.

Sydenham who professed in general to follow nature in his practice, confesses, that in this disease his principle failed him, and that he was compelled to renounce her guidance. To follow nature is a very uncertain and vague expression, and led the practitioners, in this instance to foster the disease instead of curing it. The only idea I can affix to the expression is, an attention to those things to which the wishes of the sick seem to lead, and which when indulged, produce an abatement of the symptoms. Had nature been pursued on this plan, the cool regimen would

have been adopted, and the mortality as I think diminished, and the dictates of nature followed in the most rational and effectual manner.

Savary in his Letters on Egypt, mentions an anecdote much to the purpose:—A Captain of a ship, whose sailors had contracted the Plague at Constantinople, caught it himself, by attending on them; "He felt, as he expressed himself, excessive heat, which made his blood boil; the disease seized his head, and he perceived (as he thought) that he had only a few moments to live. The little remaining reason he had, taught him to attempt an experiment; he laid himself down quite naked on the deck, the heavy dews that fell, penetrated, according to his sensations, to his very bones; in a few hours he could breathe better, his agitated blood became calm, and bathing the morning after in the sea, he was perfectly cured.*

* Savary's Letters on Egypt, Vol. II. page 220.

This story bears a strong analogy to a similar recovery in the small-pox, mentioned by Sydenham, of a person who after being treated according to the hot regimen, was thought to have expired, and was accordingly laid out, the windows opened, and the body stripped and exposed to a stream of cold air. This recovered him, and in a short time, by persevering in the cool regimen, he recovered perfectly.

Should it be required that what is meant by the cool regimen, should be explained, I answer in a few words. *Avoidance of a warm bed, and indeed of a bed altogether if possible, in the day-time*; a circulation of free and cool air, light cloathing, cool drinks, and particularly cold water. This is perfectly consistent with the application of remedies for particular purposes as, mild purgatives or injections to obviate costiveness; with the use of the Peruvian bark, as a tonic or antiseptic, and with that of opiates and even of blisters to relieve or moderate occasional symptoms.—But if any material benefit is to be expected from the use of this regimen, it

must be tried largely and steadily, not as if cold liquor were an indulgence permitted, or allowed, but as a remedy enjoined, on which the principal dependance was placed. The proportion in which it is taken must no doubt be regulated by good sense and observation, not by prejudice and impetuosity, but still we must not err on the side of timidity, as every moment is precious in a disease of such rapid progress. It appears to me to be a material point to oppose the very commencement of the sweating stage. The patient must therefore be kept out of bed, and on every appearance of perspiration, have cold water administered, and a larger proportion of cold air admitted.

It is recommended by some writers to wait for the hot stage in fevers, before the trial of the effects of cold, and in fevers of more tardy crisis this may be proper. But in the Plague our view must be to oppose the formation of the eruption altogether, or at least to reduce it within as narrow bounds as we can. It may not be possible to repress the bubo, or even to keep it within moderate bounds

if we once suffer it to increase to any great degree, and if we allow the patient to fall into a profuse perspiration, the cold regimen has in such cases been found unsuccessful. I have seen the free use of cold water internally, of the greatest service in a case of fever that seemed to participate of a hectic and intermittent combined, save that the remedies usually successful in the latter, were in this instance unavailing. Cold water liberally drank just before the period of each exacerbation, or rather paroxysm, and repeated on each notice of its return, acted as a prophylactic, and prevented the succeeding symptoms which had in some of the last instances been so violent as to threaten the extinction of life. I do not think that the state of lassitude and debility which are observed to be the first symptoms of the Plague, as they are of other fevers, any obstacle to the trial of this remedy. Such circumstances of indisposition require tonic and antiseptic remedies, and scarcely any of that kind, but the one recommended, can I think be safely advised.

Cleghorn commends the use of cold spring water in the summer fevers of Minor-

ca "as quenching thirst, strengthening the tone of the vessels relaxed and evervated by heat, and preventing the tendency of the the blood to a putredinous thinness." No effects of any remedy can be more desirable than these, in the disease now under consideration.

But should cold water internally taken prove insufficient to check the symptoms, the external use of it may I think be resorted to.

Dr. Currie of Liverpool, whose learned and ingenious work on the use of cold water in fevers, I had not seen when I wrote the former part of this dissertation "strongly recommends the trial of these *remedies in the Plague," but he does not specify the stage of the disease at which he advises the use of this remedy. It is most likely to be of service, as I think, in the commencement of the disease, though I would by no means discourage the trial at the more advanced stages. In the cold fit its use should certainly be for-

* Page 171.

born, but I see no objection to its being tried on the first symptoms of indisposition, or as soon as the cold stage, which is generally short, is over. If the cold stage is succeeded by a burning heat, as it seems to have been in a great majority of instances, the effusion‡ of cold water may, according to Dr. C. be tried with success, and I believe there are very few of the cases wherein a considerable degree of heat did not take place early in the disease, though perhaps not immediately on the first appearance of the symptoms of indisposition.

Perhaps the local application of ice, or of a stream of cold water, to those parts where the pain or swelling indicates a bubo, may be adviseable. I have myself seen the effusion of cold water in two cases of constipation of the bowels, attended with fever, effectually relieve the obstruction, and even to produce ease and abatement of the feverish symptoms, before the evacuation took place. The hazard therefore I apprehend is less than

‡ A shower-bath would be very convenient and effectual for this purpose,

the world is apt to imagine. No bad consequences followed the use of the cold application, but on the contrary, much relief in every distressing circumstance, in both instances. The same practice is mentioned by other writers, to have been pursued in numerous instances, of the same kind, without any disagreeable consequences being observed to result from it.

The practice is certainly, to appearance at least, bold, but perhaps more in appearance as contradicting the general opinion of mankind, than in reality. It does not however contradict the general opinion of the present age, more than the cool regimen, when advised in a much inferior degree, did the opinions of the physicians of the age, in which was introduced. Was there a probable mode of relief by any other means, dictated either by experience or analogy, I would forbear to suggest what I now recommend. But the violence and rapidity of the disease admit of no temporising style of practice. The interval between the seizure and the crisis, is ve-

ry short, and the event mostly fatal. Decisive measures are therefore necessary, if any efforts are to be made towards a cure.

On these principles, I think such a course to be justifiable, and on these I advise the trial. Its positive hazards are, I am convinced, inconsiderable, and though I cannot answer for its good effects, it bears, I think, such a semblance of probability, as to make the experiment in some measure a matter of duty.

ON THE

PREVENTION

OF THE PROPAGATION

OF THE

PLAGUE,

Should it be introduced into Great Britain or Ireland.

BEFORE I enter upon this subject, I wish to say a few words on the nature of infection in general, and particularly of the infectious quality belonging to the Plague.

Certain diseases incident to the human body, are, it is well known, liable to be propagated from those who have them, to others not infected. Some of these diseases are communicable only by contact either of the infected part of the body, or of some other substance imbued or contaminated with the infectious matter.—The itch, and perhaps other cutaneous diseases seem to be of this kind.

In some other diseases the contagion is of a more diffusible nature, and infects the surrounding atmosphere, to a certain distance, to such a degree, as to propagate the disease to such as inhale, or swallow air so infected. Of this kind are the measles, the small-pox, the typhous fever, the Plague, and probably many others.

Where the disease is local, as the itch, it appears probable to me, that it is propagated only by contact of the virus or infected matter; where it is general, and attended with fever; the system at large seems to partake of the contagion, and then the atmosphere to a certain extent is liable to be infected by the breath or effluvia emitted from the body.

Notwithstanding the notoriety of the communication of the Plague by infection, some persons have been hardy enough to deny this to be the case, and have maintained, that the disease was owing to different causes, as inclemency or moisture of the seasons, the effluvia of marshes, the vapour arising from collections of putrefying substances, and the

like; which it is to no purpose in this place to controvert.—If the Plague be not infectious, I have written in vain to prevent its spreading. This, therefore, I mean to take for granted, and indeed it scarcely needs a proof, unless to those who expect as much certainty in conjectural science, as there is in mathematical demonstration.

Others have embraced an opinion of an opposite kind; taking it for granted that the infectious poison may be dissolved or diffused in the atmosphere, they have maintained that it may spread the contagion to an indefinite distance. A practitioner of eminence so far deceived himself, as to suppose that he had known the variolous infection to be carried thirty miles. But such wild suppositions are neither consonant to the analogy we observe in nature, nor to matter of fact. Poisons we know must be taken in a certain proportion before they affect (sensibly at least) the human body. Most of the water or other liquors we drink, especially such as have passed through leaden pipes, contain minute portions of insalutary ingredients, but

experience proves that such small quantities do not produce any effects that are obvious to our observation. In like manner the atmosphere may contain the seminia of a thousand diseases, but so thinly scattered, as to elude our senses, and too weak to affect our bodily frame.

A certain accumulation, either of poison or infecting matter, is necessary to produce any effect. Minute portions of either are inactive, either from the insensibility of the system to such diminutive stimuli, or from some power in nature to resist or render them innocent.

Were it otherwise, the whole œconomy of nature, as far as regards mankind, would be destroyed. The food we eat, and the air we breathe, instead of contributing to our nourishment and support, would become storehouses of disease, and instruments of destruction.

Every distemper capable of being communicated by contagion, must infect the whole

globe, without hope of its being ever eradicated. The consequences of this, and how contrary they are to that system by which we have every reason to believe God governs the world, I need not enumerate.

The two opinions mentioned above, however opposite, lead, as contrary extremes often do, to the same mischievous consequences. The one represents all caution, in avoiding infection, to be unnecessary and superfluous, the other rejects it as unavailing.

In either case, those measures are neglected, which alone can stop the mischief, and the lives of mankind are sacrificed to aery and extravagant speculation, or to an obstinate refusal to listen to the evidence of the senses. The bulk of candid and moderate practitioners were, I believe, always of opinion, that the infection of certain diseases extended only to a certain distance, but this opinion was not reduced to any determinate standard, before Dr. Haygarth published his observations on the small-pox, and the typhous fever. He has shewn beyond a doubt, that

the limits to which contagion extends, are much less than is usually apprehended, and that these limits are capable of being contracted by prudent and proper management, and of being enlarged by neglect and inattention.

His works on this subject have laid the foundation of every rational scheme for the stopping the progress of infection, and the measures recommended by him have succeeded beyond expectation in practice, in preventing the ravages of a malignant and desolating fever at Manchester, and even of nearly eradicating the disease; and I am particularly happy in hearing that the same plans are likely to be adopted in the metropolis.

The method suggested by Dr. Haygarth, for rendering the variolous poison innocent, and which forms the basis of what I mean to propose on the present occasion, is as simple as it is effectual. It consists in nothing more than in the dilution of the poisonous matter in the air, to such a degree, as to

make it inactive, and this joined with cautions to prevent the actual contact of the virus, forms the whole of the means recommended.

How both these means of prevention may most easily and effectually be put into execution, I shall next consider.

We have no reason to doubt that the infectious matter of all diseases, is capable of undergoing a solution in the atmosphere. The air thus contaminated, can be diluted with nothing but air that is fresh, and on this depend all the methods of preservation, except what regards contact of the virus. All correctors of the specific nature of the contagion, I regard as at best uncertain, and most of them incompatible with that change of air which is required for the purpose I recommend.—None of them appear to possess any advantages superior to what may be gained by change of air, and as they may induce people to neglect what is material, I wish to induce them not to practice any of

them whatsoever.—The sphere of infection in the small pox, has been proved not to extend, in general, above two feet from its source, considered as a centre, and we have great reason to think that it is equally infectious with the plague. By a free circulation of air, this sphere may be farther reduced, insomuch as to render secure the services which attendants may administer to the sick. Except this can be accomplished all attempts to put a stop to the infection will be unavailing. Humanity and the ties of affection will not admit of people dying unassisted and unattended, and if the infection cannot be prevented from spreading to those who perform these duties, it must soon become general.

Every circumstance then that can promote a free circulation of air, in the chambers of the sick, must be attended to, and we must lay aside all prejudices about injuring them by exposing them to cold air, which are frivolous and unimportant compared with the necessity which there is for a different management.

The windows and doors therefore of the sick room, must be kept open constantly, in order to produce such a current as may dilute and carry off the effluvia as they are emitted, and before they have time to accumulate. In cold weather, a moderate fire may be necessary to temper the severity of of the season, but this will not excuse the necessity of opening a window, and if this be done properly, the current of air will be assisted by the fire.

Next to change of air, the cool state in which the person affected should be kept, is a matter of importance. The precautions I have before advised, will, if rigidly adhered to, insure in a good measure, the coolness of the chamber; but as it is highly necessary that the person of the patient should be kept cool as well as the air which he breathes, and this, for the sake of the attendants, as well as his own; a superfluous quantity of bedcloaths is by all means to be avoided. Every method which tends to keep the patient in a perpetual perspiration, is dangerous to his attendants, by increasing the pu-

trid tendency of the disease, and augmenting both the quality and the sphere of the infectious effluvia. The hot regimen, or the attempts to cure the Plague by sweating, are, I am convinced, noxious to the sick, and utterly incompatible with the means necessary to be used for preventing the propagation of the disease.

Indeed I am strongly inclined to think that it would be better for the patient, and certainly safer for his attendants, not to be confined at all to his bed. This might probably prevent much of that loss of strength, which is so distinguishing, and so discouraging a symptom of the plague, as it commonly appears. Sydenham, as I have before remarked, mentions instances of persons who, though infected with the Plague, experienced little indisposition or inconvenience, until they confined themselves to their beds, and practiced the hot regimen, which soon induced all the usual bad symptoms, and speedily terminated in death.

Cleanliness is another precaution equally necessary.

Linen and other cloaths imbued with contagious, or simply animal effluvia, tend to increase the contamination of the air in a sick chamber, and there is great reason to think, enlarge the sphere of the infection. The contagion of the jail fever was propagated in a close and crouded court‖ to a much greater distance than it would have been, had due means been timely taken to change the cloaths and cleanse the persons of the prisoners, before they were brought up, and renew the air of the court by proper ventilation.

The linen and other cloaths of the sick are therefore required to be changed frequently, and much trouble may be saved in this article, if the patient be not confined to his bed. The sheets and blankets will be less loaded with noxious effluvia, and the facility of exposing the bedding to a current of air, and of cleaning the apartment, both of them highly necessary attentions will be much increased. The last mentioned piece of cleanliness, must be frequently repeated. The room should be washed round the bed

‖ See Foster's Crown Law, page 74.

daily, and all foulness in every other part immediately removed. For the same reason no fragments of food or victuals of any kind should be suffered to remain in the sick room, and no more persons than are necessary should be permitted to enter. The breath, even of healthy persons, contributes to injure air, and render it less capable of dissolving and carrying off other noxious effluvia. All the discharges of the patient are for the same reason to be immediately removed, and deposited in some place not frequented by the rest of the family. All the linen, sheets, and other parts of the patient's dress or covering, immediately after they are taken off, must be thrown into a tub of cold water, and thoroughly immersed therein.

Experience has shewn in other infectious diseases that, after this precaution, they may be safely washed. The water, however, used for the purpose of immersing the cloaths, must be changed every day, and thrown out that it may not be used for any other purpose. Regard to cleanliness must be shewn to the person of the sick, in washing the face and

hands, once at least, every day, with clean and cold water. This will conduce to the general purpose, by checking those perspirations, which those who labour under the Plague, are so apt to fall into.

But though by such means, I am persuaded that the sphere of infection may be much contracted, yet none of these directions, however steadily observed, will supersede the necessity of farther caution. The attendants must be directed not to come in the way of the patient, so as to inhale or swallow his breath or the effluvia of his perspiration, when he is in bed, especially if he is confined to it; and immediately after being so exposed, either accidentally, or in performing any necessary services, care should be taken not to swallow the saliva, and to wash the mouth as soon as possible after each time that any suspicion may be had of having imbibed the pestilential effluvia.—Cleanliness in the persons of the attendants is necessary, as well as in those of the sick, to avoid contaminating the air of the room, which is so necessary to

be kept free and pure, as well as on other accounts.

Hitherto I have spoken of the means to be used for preventing infection from the breath or effluvia of the patient. Let us now consider the means of preventing the same mischief arising from actual contact of the infectious matter. Experience has not yet shewn at what stage or point in the progress of the disease, the Plague becomes infectious. The small-pox is not thought to be so before the formation of matter, but the progress of the Plague is quicker, and the appearance of the bubo is very often as early as any other sign of indisposition. Attention therefore to prevent unnecessary intercourse with the sick, must be paid proportionably earlier, though I am strongly inclined to think, that no active contagious matter is produced before some eruption is come to maturity, or at least has formed an open sore.—This opinion however, though I think it probable, is matter of conjecture only. On account of the rapidity of the progress of this disease, it will be proper that on its appearance, or even

suspicion of its appearance in any family, those who are inclined to quit the house, should do it as soon as possible after considerable marks of indisposition of any kind have appeared in the person suspected, as a a few hours may determine on the safety or hazard, to society, of such removal. I wish here to observe, that the efficacy of all the precautions I recommend, will depend in a great measure on their being steadily and temperately conducted: Less hazard will arise from some small delay, then from precipitate haste, though every unnecessary delay must be avoided.

After the nature of the disease is ascertained, no one should approach the sick person, except those who are necessary to pay him him the proper attention, much less to touch, embrace, or kiss him.

Those who attend him should be as sparing as possible of any unnecessary contact, and when this is necessary, it should be done with gloves made of oiled silk or linen. There

is however sufficient proof that the disease is not communicated by simple contact of the skin. Dr. Russel repeatedly felt the pulse of many persons in all stages of the disease, though he never was infected; but it would be dangerous I think to presume too much on this, as the hands of the patient and perhaps other parts might be imbued with the matter of the sore, which casually oozed through the dressings; and in case of carbuncle, it would be scarcely possible to prevent many parts of the body from being so contaminated.

A piece of oiled or varnished silk or linen of the size of the bed should be laid under the lower sheet, and another piece of the same shape above the upper sheet of the bed in order to protect the blankets and other bedding from the accumulated infection of perspiration, or from any contagious discharge that might ooze through the dressings; and it would be better perhaps if the upper piece of oiled silk or linen was made considerably longer than the lower so as to admit of being turned down at the top under

the sheet, below the point to which the arms of the patient when put out of the bed usually extend. Care should be taken in making the bed, that these pieces of oiled linen be always placed with the same side uppermost, and they should be marked in such a manner that they may be easily so distinguished.

The bolster and pillow may be covered with a case of the same kind, which will be particularly necessary if the disease terminates in a parotis.

No more food or drink should be offered to the patient than so much as he will probably consume at one time, and what he leaves of either should be thrown away, and the spoon with which he is fed should not be dipped into any larger portion of the patient's food, than what is administered at one time. A particular set of knives, spoons, and cups, should be kept for the patients, and not used by the rest of the family. All dressings of the sores, poultices, fomentations, &c. should be carefully thrown away and deposited in some

place out of the reach of animals, and where they cannot be touched or handled by any incautious or officiously curious persons.

The surgeons who dress the buboes or sores should do it with oiled silk or linen gloves on their hands, which should be carefully washed after each operation, and particular care must be taken that the instruments used, be kept for this purpose only, and thrown into cold water as soon as they are used, and carefully cleaned. Forceps (and those pretty long) might be used with propriety both for the putting on, and taking off the dressings.

As the pestilential sores often continue open and discharging, after the patient is out of danger, it is of consequence to determine after what interval of time such discharge ceased to be infectious, and becomes simply purulent. Dr. Russel thinks two months a sufficient time, if the sore or ulcer should continue open so long, but I should thing a much less time would suffice.

We must be particularly on our guard against presuming that a person who has recovered ceases to be infectious as soon as he is out of danger, and his health apparently restored.—Experience has proved that the small-pox is more infectious in its decline than its early stage, and probably the same is true of the Plague. No one therefore should be suffered to leave the house or to mix with society until a week at least has elapsed after the healing of his sores and falling off of every cicatrix belonging to them. This however need not extend to a single sore as above mentioned, when the healing has been long protracted. No person who has recovered from the Plague, should be suffered to leave their apartment without having on fresh cloaths, or at least cloaths fresh washed. Shoes, or slippers of leather had better not be worn during the confinement, as it is not so easy to clean them thoroughly.

No dog, cat, or other domestic animal must be suffered to enter the sick room. Cats are particularly dangerous from their habit of rubbing against those to whom they have any

attachment, and as they are apt to ramble and incapable of being confined. Add to this, that both cats and dogs are apt to creep into beds, and the hazard of this is a sufficient reason for the exclusion of both.

In case of death, precautions must be used respecting interment.

The body might be rolled up in the under sheet of the bed, and the oiled linen covering under it. This would protect the assistant from immediate contact of the infected body, or of any moisture that might ooze from it, and of rendering its removal into the coffin safe.

A coarse pitched cloth should be previously laid across the coffin, and folded carefully so as to inclose the corpse perfectly.

Care should be taken that too many persons be not interred in one place. Russell notices the infection of grave-diggers from this cause.

The bodies should not be carried to the grave on men's shoulders, but be drawn on some open carriage, and without any pall or covering. Necessity may well excuse so slight a tresspass on decorum.

It would add to the security of those who wash the linen of the sick, if they were washed with one of those machines that does not require the contact of the hands with cloaths, &c. which are washed.

Every room should be carefully washed out after the death or recovery of each person as well as the bedding and furniture.

It would be proper that the chairs of the room should be of wood only, without any stuffing or covering, that they may be easily and effectually cleaned.

Blankets and quilts it may be sufficient to expose to the air, but if either of these be contaminated with the matter of the sores, they must be washed immediately. All quilts used on such occasions had better be made

after to the churchwardens or minister of the parish, who shall make the proper inquiry, and if any cause of suspicion arise, shall signify it in writing, to the searchers, who shall examine the same.

Let the same notice be required from every master or mistress of a family, if any individual belonging to it show any signs of indisposition whatever, and particularly such as are specified in the directions to the searchers.

Let every person who shall omit to give such notice in due time, be liable to a penalty of 10l. capable of being lowered to 40s. but not lower. Let every person who shall, when required refuse to give such information concerning any sick person to the minister or churchwardens, be liable to a penalty of 10l. without any diminution. Let every person who shall refuse admittance to the searchers, or refuse to give them information when required, or wilfully give false information, be liable to a penalty of 50l. and six months' imprisonment, without any mitigation.

decent accommodation and lodgings during their absence from their dwellings.

That a proper professional person be appointed to attend the sick by the justices, and have a certain allottment of district, which he shall visit daily; that such professional person shall keep a book as is usual in hospitals, containing the daily report of each patient's health, and of the remedies administered, and that this book be left with the churchwardens of the principal parish in the district, who shall permit the friends of the sick to inspect such parts of it as concern those persons with whom they have any connection, but no other intercourse with the sick family must be allowed to those who have quitted the house, under a large penalty. If however, any of the attendants on the sick be disabled from performing the necessary services, some other persons of the family may be appointed or allowed by the searchers (with their own consent) to supply such place.—Those so disqualified must not quit the infected house without leave of the medical attendant, who shall not give any such per-

IV.—" If any sores or boils be in any part of the body, and if these be encircled with a scarlet border, and be of a brown or black colour on the top."

On these examinations proving the existence of the Plague, or a strong suspicion thereof, the searchers should signify the same to the minister and churchwardens, who should warn the inhabitants against any intercourse with the infected house, except what is allowed by the searchers.

That such persons as choose to leave the house on the first day that any indisposition has appeared, may be permitted, and on the second day, provided no bubo, carbuncle, or parotid has appeared, but none later than the second day.

That it be recommended to every person in an infected family, to quit the house on the assurance that the infection is in it, those only excepted who are necessary for attending the sick, and that the churchwardens provide at reasonable rates, to such as desire it,

decent accommodation and lodgings during their absence from their dwellings.

That a proper professional person be appointed to attend the sick by the justices, and have a certain allottment of district, which he shall visit daily; that such professional person shall keep a book as is usual in hospitals, containing the daily report of each patient's health, and of the remedies administered, and that this book be left with the churchwardens of the principal parish in the district, who shall permit the friends of the sick to inspect such parts of it as concern those persons with whom they have any connection, but no other intercourse with the sick family must be allowed to those who have quitted the house, under a large penalty. If however, any of the attendants on the sick be disabled from performing the necessary services, some other persons of the family may be appointed or allowed by the searchers (with their own consent) to supply such place.—Those so disqualified must not quit the infected house without leave of the medical attendant, who shall not give any such per-

mission, except they are in perfect health, and have been secluded from the sick chamber the space of eight days at least.

When any death shall take place, the medical attendant shall give notice to the searchers, who shall take care that the corpse be placed in the coffin according to the directions before given, and closed up carefully, and conveyed to the place of interment within twenty-four hours, if possible, after the decease, but that no body of any person so dying be brought into any church or place of worship, but conveyed directly to the grave.

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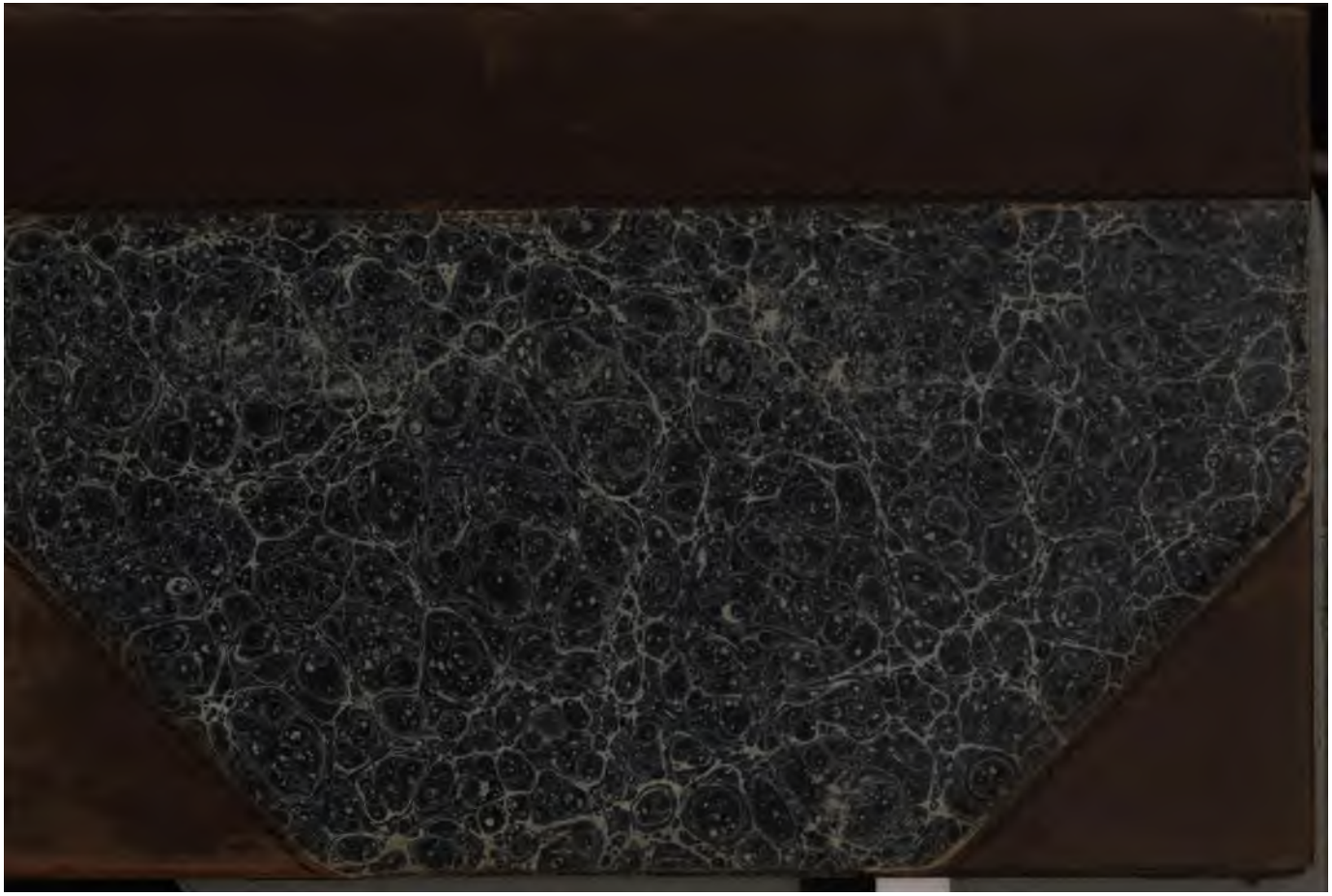
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